# Self-Medication in Africa during COVID-19 Pandemic

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## Abstract

Self-medication is known as "the usage of drugs, herbs or home remedies on one's own initiative, or on the advice of another person, without consulting a doctor'. In Africa, self-medication has reached a critical stage, with people using and taking any drug regardless of how poisonous the material may be as long as unprofessional suggestions advocate it as a solution to their health problem. In this article, we looked at the consequences, effects, and recommendations for reducing the use of self-medication as a habit among Africans.

## Introduction

Self-medication is known as "the taking of drugs, herbs or home remedies on one's own initiative, or on the advice of another person, without consulting a doctor"(1). Factors like considering the disease to be mild, continued use of prescribed drugs, suggestion of friends with similar symptoms, having little pharmacological understanding, saving time and consultation fee, previous similar experiences encourage the practice of selfmedication among the population (2,3).

Self-medication is a worldwide phenomenon and a greater influencer to the pathogenic resistance of humans to the usage of antibiotics. The outcome effects of self-medication evolve around the community practices and the strategic way they are using to reduce it. A constant and common use of medications without health professional guidance may lead to drug resistance, incorrectness in drug usage, delay in proper medical treatments and increased mortality(4).

Self-medication in Africa has gotten to a level of crises and threats, as people use and take any drugs in their low regards to how toxic the substance may be as long as unprofessional recommendations recommend it as a remedy to their health problem. The circumstances that erupt from self-medication have become a burden in Africa due to factors such as low effectiveness of healthcare sectors, ignorance, and poverty, unlicensed and unqualified medical professionals who prescribe drugs for people without a medical diagnosis and drug abuse. These factors energize the prevalence of selfmedication in Africa and only few people have access to trained medical professionals who can prescribe the right drug to use. The factors that erupt from poverty make most people in Africa unable to visit and conduct diagnosis before treatment because

**Corresponding author:** Mohammad Yasir Essar Medical Research Center, Kateb University, Kabul, Afghanistan Email: <u>m.yasir.essar@kateb.edu.af</u> of the medical service bill they cannot afford. However, among the factors that enable self-medication in Africa is the high cost of drugs that render many people to demand for lower drugs and non-conventional alternatives (5–7).

In this article, we examine the impact, effects, and recommendations that can eradicate the use of self-medication as a habit among people in Africa.

## Self-Medication in Africa before COVID-19 pandemic

Self-medication is a serious problem among the resource limited countries of Africa, which have to tackle multiple challenges with an underdeveloped healthcare infrastructure. The use of medicines and complementary treatment options, including traditional medicine, to treat ailments has been reported widely (8,9).

Self-medication can reduce healthcare expenditures and provide easy access to medicine. However, it has many associated problems and potential risks of safety. One of these is the excessive use of antimicrobials and thus an increased resistance of pathogens. A study in Maputo reported that selfmedication of antibiotics and their inappropriate utilization is an alarming concern. Also, many drugs cause serious allergic reactions and other adverse effects. In the case of over the counter medicines, patients should be counseled about the use of medicines for minor ailments(10–13)

Undergraduate students of a private Nigerian university disclosed that they practice self-medication due to the unfriendly attitude of the healthcare staff (14). A study among pregnant women in Addis Ababa revealed that 40% of the women who had self-medicated medicines were from risk factors category C, D and X that possess potential fetal toxic and harmful effects (15). A systematic review in Ethiopia concluded the prevalence of self-medication from 12.8% to 77.1% with the highest use among the medical and health sciences students as compared to the general public(2).

## How it turned worse in the COVID-19 era

Self-medication is an important initial response to illness in Africa. This medication practice is often done with the help of African traditional medicines. Because of the misconception that African traditional medicines can cure/prevent all diseases, some Africans may opt for COVID-19 prevention and management by self-medicating. Therefore, self-medication has shown increased prevalence during the COVID-19 pandemic worldwide with high google trends searching for the potential cure and the treatment protocols (16).

For the management of COVID-19, the majority of Africans are self-prescribing and consuming medicines. Social media is a major source of information, followed largely by the population and resulting in a higher rate of self-medication (8). It was found in Lomé during the COVID-19 pandemic that one-third of the high-risk populations were practicing self-medication (17). In Togo, for instance, four in five people practice self-medication, the absence of a cure for COVID-19 and the constant progression of the disease requires an assessment of self-medication patterns in the context of the pandemic.

African countries, such as Nigeria, Kenya, and Togo showed an increased prevalence of self-medication during the COVID-19 pandemic to 41%, 36.2%, and 34.2%, respectively (12,17,18). People's urge for self-medication erupts from their fear of getting the infection, being quarantined, insecurity about drug shortage, and mental stress by the overspreading news about potential cures, new cases, and deaths. Furthermore, patients turn to self-medication due to the limited access to health care facilities either because of being overloaded by COVID-19 patients or fear of contacting medical personnel(19,20) (19,20).

# Implications of self-medication during the COVID-19 pandemic in Africa

One of the main problems with self-medication is that people usually self-medicate with less regard to proper dose, duration, and possible drug interaction, especially for patients with chronic illnesses (21,22). The most common drugs used for self-medication during the COVID-19 pandemic are multivitamins, zinc, azithromycin, ivermectin, chloroquine, and hydroxychloroquine (18). If not used properly, they can cause serious health issues such as severe vomiting, liver and kidney damage, neurotoxicity, ventricular arrhythmia, and even death.

Moreover, Self-medication contributes to masking the symptoms and delays proper health care. It also carries the risk of developing resistance against antimicrobial and antiparasitic agents, especially that Africa is endemic to Malaria (23,24). It became harder for patients with immunological conditions depending on chloroquine and hydroxychloroquine to access their medications, leaving them liable to inflammatory flares and worsening conditions (25).

Low and middle-income countries suffer from a fragile health system that was deeply affected by the COVID-19 pandemic

(21,26). Having to deal with complicated cases from selfmedication will increase the burden. On people's way to protect themselves, they stock-store certain drugs, consequently, they limit their accessibility for patients in real need and create a chance for price gouging (20). In Vietnam, Fwu-Ranq Chang and Pravin K. Trivedi studied the economics of self-medication and concluded that the more the economy grows, the less the selfmediation practice manifests. They also showed that health insurance coverage limits the self-medication practice and its consequences (27). Further research is needed regarding the economic impact of self-medication in Africa.

## Recommendations

SM could worsen the current situation of a health crisis for which no country is fully prepared during the COVID-19 pandemic (20). To address this issue, self-medication should be closely monitored, especially in low- and middle-income countries, which are experiencing an economic crisis and often have low educational standards and inadequate healthcare facilities, particularly during COVID-19 (28).

Individuals should be aware of the medication's method of administration, efficacy, and side effects, as well as how to treat them, according to the WHO guidelines on SM (29). Public education, sound training of healthcare practitioners, including community pharmacists, and stringent prescription controls on public advertisement and drug usage can all be used to promote the use of SM. Positive support from national health authorities would help to minimize the risk of SM and drug stockpiles during the pandemic (20,30).

Authorities should have appropriate drug-use plans. To alleviate SM practices and promote fair use of medication by the public, readily accessible, cost-effective, and proper consultation with healthcare providers should be encouraged (31,32). Every campaign should be assessed for its effectiveness.

Mass media has a remarkable effect on the mental stress in Sub-Saharan Africa during the COVID-19 pandemic (33). Although it is a contributing factor to the wrong actions, Mass media should be used to target general public awareness and education campaigns created about the safe usage of medicines and potential risks associated with their improper use (34). It can help correct them by worldwide awareness campaigns that spread accurate information about drug usage, dose, duration, and strongly advise against drug stocking in time of need of all the available resources (8).

Regulatory authorities should also impose greater limitations on talk shows and journals that broadcast unproven information about potential remedies. The distribution of information about the COVID-19 scenario should be restricted to health-care professionals. Furthermore, treatment protocol revisions should be given only to clinicians, not to the general public (20). We need collaboration between health authorities, doctors, and pharmacists to fight unaware self-medication to limit its negative impact on health (35). Pharmacists should report any stock buying of certain medications, especially if drugs are involved in COVID-19 treatment protocols. The regulatory authorities should monitor the supply chain to ensure that drugs get delivered to the patients in need first (14). National level guidelines should be developed to define the access of medicines with and without prescription. The selling of medicines without prescription, needs to be discouraged. Finally, amid its drawbacks, telemedicine can help with timely and proper care delivery, reducing patients' need to selfmedicate.

## Conclusion

The use of medications without medical professionals consultation and buying over the counter drugs are one of the important problems leading to witless use of medications in Africa. Self-medication is becoming a serious threat and concern in Africa as the cases keep on increasing. The article focused on the impact of self-medication, effects, challenges, and recommendations of self-medication, their use, safety, knowledge, and side effect among people in Africa. However, African countries have low economic development, low education status as well as poor health care facilities.

People in Africa have low knowledge regarding risks associated with self-medication and taking drugs without prescription. Africa's healthcare system is on the edge on whether to promote self-medication or not because the environment, low healthcare insurance and financial stability of people are not stable and there is a need for them to take drugs to keep them healthy. Therefore, it is highly recommended that there is a need to take the right steps to prevent the problem of selfmedication. These include sensitization and awareness programs, health literacy, education and training programs on self-medication in different areas in Africa, enacting policies that will ban drugs and medications without medical professional prescriptions, increase free drug availability for people, and policies should be strong on pharmaceutical advertisement.

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